INTRODUCTION
Retinal degenerations are the main cause of blindness in the first world. In Europe, they currently affect millions of people, and it is expected an exponential increase because of the rise in the life expectancy, the greater exposition to light, and the loss of the natural protection meant by the ozone layer. The retinal neuro-degeneration can be prevented, stopped, and treated by means of implanting optical filters to block the short-wave length radiations of the light spectrum reaching the ocular system.

The efficiency of the treatment incorporated in the contact lenses has been shown in experimental studies carried out for 4 years with rats, mice, and rabbits. However, it is necessary to know the biocompatibility of the asceptification, cleaning, and maintenance solutions for this type of contact lenses that block the spectrum blue bands in the human ocular tissue.

Aim: Determining the biocompatibility of hydrophilic contact lenses made of different materials and with different absorbance levels in the short-wave lengths – treated with the disinfecting peroxide solution Ever Clean® (Avizor) on human conjunctival fibroblasts in vitro.

RESULTS
No statistically-significant differences were found (p>0.05) between the different types of contact lenses materials and the basal control. Significant differences were found between the different types of contact lens materials and the toxicity control.

OXIDATIVE STRESS (Reactive species to O2)

MITOCHONDRIAL DAMAGE (Potential of mitochondrial mbb)

APOTOTOSIS (Activation of caspasa 3)

DNA DAMAGE (Activation of H2AX)

CONCLUSIONS
The tested hydrophilic contact lenses, made of different materials with different levels of absorbance in the short-wave lengths, show to be biocompatible in human fibroblasts in vitro after treatment with the maintenance solution Ever Clean.